

IN THE CLAIMS

Claim 1 (currently amended): A tilt hinge for connecting a first member and a second member which are opened and closed with respect to each other in a manner to be friction-rotatable, said hinge comprising:

a holder composed of an attachment portion, a case portion having a cavity portion with a locking groove mounted on said attachment portion, and a sidewall with a bearing hole mounted on one side of said cavity portion, said bearing hole having the same axis with said cavity portion, and attached to either one of said first member or said second member;

a shaft composed of a deformed small-diameter portion, a flange portion and an attachment portion, which shaft is rotatably mounted on said bearing hole with its small diameter portion penetrating in an axial direction of said cavity portion, and said attachment portion being attached to either the other one of the first member or the second member while also attached to the holder so as to be rotatable with respect thereto and to be non-movable in the axial direction;

a plurality of first friction disks with locking portions, said first friction disks being engaged on the small-diameter portion of said shaft in an axial direction by a circular through-hole of each one of said first friction disks, and said first friction disks being held in said cavity portion of said holder, and said locking portions being engaged with said locking groove inserting said shaft rotatably and movably in the axial direction through an insertion hole of each disk and held by said holder;

a plurality of second friction disks having deformed through-holes in the central axial

direction, the shaft extending through said deformed through-holes of each one of said second friction disks, and thus connecting with said deformed through-holes, and being interposed between said first friction disks, and held in the cavity portion of said holder rotatable along with said shaft; inserting the shaft through an insertion hole of each disk, being interposed between the first friction disks, restrained its rotation by the shaft and movably in the axial direction; and

an elastic means provided on said shaft for press-contacting with each other the first friction disks and the second friction disks; and

fastening means attached on an end of said small diameter portion of said shaft in order to create elasticity in said elastic means, attached to the shaft to cause the first friction disks and the second friction disks to press-contact each other in the axial direction;

Claim 2 (original): A tilt hinge according to the claim 1, wherein either one of the first friction disk or the second friction disk is formed of a hard material, while either the other one to be formed of a soft material.

Claim 3 (currently amended): A tilt hinge according to claim 1, wherein the second friction disks comprise engagement lugs engaging the shaft in the through-hole thereof through which the shaft is inserted, first friction disks have locking portions on an outer periphery thereof so that they are locked in the holder, while the second friction disks have locking portions to be locked to the shaft in the insertion hole thereof through which the shaft is inserted.

Claim 4 (currently amended): A tilt hinge according to claim 1, wherein said elastic means is composed of ~~a nut attached on an end portion of the shaft, and~~ disk springs and/or spring washers interposed between said fastening means ~~the nut~~ and either one of the first friction disk or the second friction disk, while the shaft being inserted through the insertion hole of said spring washer.

Claim 5 (currently amended): A tilt hinge according to claim 1, wherein the elastic means is composed of said fastening means ~~a nut attached on an end portion of said shaft,~~ and a compression spring elastically provided between the nut and either one of the first friction disk or the second friction disk.

Claim 6 (currently amended): A tilt hinge according to claim ~~[[4]]~~ 1, wherein said fastening means comprises a caulking portion at an end of said shaft. ~~instead of said nut, a caulking portion formed by caulking an end portion of said shaft can be used as a nut.~~

Claim 7 (currently amended): A tilt hinge according to claim 1, wherein said said fastening means comprises a clamping nut fitted in a male screw portion provided in said small diameter portion of said shaft. ~~holder includes a case portion containing all or at least a part of said first friction disks and said second friction disks.~~

Claim 8 (previously presented): A tilt hinge according to claim 1, wherein, in the first friction disk and/or the second friction disk, an oil reserving portion is provided for lubricating a press-contact portion between them.

Claim 9 (currently amended): A tilt hinge according to claim 1, wherein, ~~on an outside of a said~~ locking groove of said holder ~~in which~~ contains each said locking portion of the first friction disk ~~is locked, said case portion having a depressed portion is given on an outer surface thereof adjacent the locking groove~~ to prevent a trembling of the first friction disk with respect to the locking groove.

Claim 10 (canceled).

Claim 11 (new): A tilt hinge for connecting a first member and a second member which are opened and closed with respect to each other in a manner to be friction-rotatable, said hinge comprising:

a holder composed of attachment portion, and a case portion constitute of cavity portion with a locking groove mounted on said attachment portion, and a sidewall with bearing hole mounted on one side of said cavity portion, having the same axis with said cavity portion, and attached to either one of said first member or said second member;

a shaft composed of a deformed small-diameter portion, a flange portion and an attachment portion, which is rotatably mounted on said bearing hole with its small diameter portion penetrating in an axial direction of said cavity portion, and said attaching portion is attached to either the other one of the first member or the second member;

a plurality of first friction disks with locking portions, said disks inserted at deformed small-diameter portion of said shaft in an axial direction through circular through-hole of each one of disks, and said friction disks held by said cavity portion of said holder, and said locking portions are engaged with said locking groove;

a plurality of second friction disks having deformed through-holes in the central axial direction, inserting the shaft through said insertion holes of each one of said disks, and thus connecting with said deformed insertion holes, being interposed between said first friction disks, and held in the cavity portion of said holder rotatable along with said shaft;

an elastic means provided on said shaft for press-contacting with each other the first friction disks and the second friction disks; and

fastening means attached on an end of said small diameter portion of said shaft in order to create elasticity in said elastic means;

said locking groove containing each said locking portion of the first friction disk, and said case portion having a depressed portion on an outer surface thereof adjacent the locking groove to prevent a trembling of the first friction disk with respect to the locking groove.